What is claimed is:

1. A projection exposure mask comprising:

a first mask pattern for exposing a member to form a continuous pattern thereon; and

a second mask pattern for exposing the member to form a discontinuous pattern thereon,

wherein one of the first and second mask patterns is a reflecting type mask pattern and the other mask pattern is a transmitting type mask pattern.

2. The projection exposure mask according to claim 1, wherein the reflecting type mask pattern reflects light incident from one surface side of the projection exposure mask, and the transmitting type mask pattern transmits light incident from the other surface side of the projection exposure mask.

3. The projection exposure mask according to claim 1, wherein an irradiation area of light irradiated to the reflecting type mask pattern and the transmitting type mask pattern has a linear or arc slit-like shape, and

each of the mask patterns has pattern elements which are provided alternately in a longitudinal direction of the irradiation area.

4. The projection exposure mask according to claim 1, further comprising a third mask pattern which has a minimum pattern width

smaller than a minimum pattern width of the first mask pattern, the third mask pattern being provided in a portion of an area in which the first mask pattern is provided in the projection exposure mask, wherein the third mask pattern is a mask pattern of the same type as the first mask pattern of the reflecting type and the transmitting type mask patterns.

5. A method of manufacturing a projection exposure mask which includes a first mask pattern for exposing a member to form a continuous pattern thereon and a second mask pattern for exposing the member to form a discontinuous pattern thereon, one of the first and second mask patterns being a reflecting type mask pattern and the other mask pattern being a transmitting type mask pattern, the method comprising the steps of:

a first step of preparing a transparent substrate having a reflecting film formed on a surface thereof;

a second step of applying a resist on the reflecting film and performing exposure and development on the resist to form a shape of a base portion for forming the reflecting type mask pattern and a shape of the transmitting type mask pattern;

a third step of applying a resist on the reflecting film having the shape of the base portion and the shape of the transmitting type mask pattern after the development at the second step, performing exposure to form a shape of the reflecting mask pattern on the resist on the base portion, and performing development thereon;

a fourth step of forming an anti-reflection film on the

reflecting film in an area in which the resist is removed at the third step; and

a fifth step of removing the resist in the shape of the reflecting type mask pattern left in the development at the third step.

6. A projection exposure apparatus comprising:

the projection exposure mask according to claim 1; and

an optical system which employs the projection exposure mask to expose a member to form a continuous pattern and a discontinuous pattern thereon.

7. A projection exposure apparatus comprising:

a projection exposure mask which includes a first mask pattern for exposing a member to form a continuous pattern thereon and a second mask pattern for exposing the member to form a discontinuous pattern thereon, one of the first and second mask patterns being a reflecting type mask pattern and the other mask pattern being a transmitting type mask pattern;

a projection system which projects light from the reflecting type mask pattern and light from the transmitting type mask pattern onto the member;

a first illumination system which irradiates light to the reflecting type mask pattern from one side of the projection exposure mask;

a second illumination system which irradiates light to the transmitting type mask pattern from the opposite side of the one

side of the projection exposure mask; and

a substrate stage which moves the member in a direction substantially orthogonal to a projection light axis of the projection system.

8. The projection exposure apparatus according to claim 7, wherein the projection system combines light from the reflecting type mask pattern with light from the transmitting type mask pattern to project the combined light onto the member.

9. The projection exposure apparatus according to claim 7, wherein one of the first and second illumination systems irradiating light to the first mask pattern is of a continuous illumination type, and the other illumination system irradiating light to the second mask pattern is of an intermittent illumination type.

10. The projection exposure apparatus according to claim 7, wherein at least one of the first and second illumination systems irradiates light to the projection exposure mask in a linear or arc slit-like shape.

11. The projection exposure apparatus according to claim 7, wherein the first illumination system irradiates light to the reflecting type mask pattern through the projection system.

12. The projection exposure apparatus according to claim 11,

wherein the projection system includes a light splitting element, the light splitting element splitting an optical path of light irradiated to the reflecting type mask pattern from the first illumination system from an optical path of light reflected by the reflecting type mask pattern and projected onto the member, and the light splitting element combining light from the reflecting type mask pattern with light from the transmitting type mask pattern.

13. The projection exposure apparatus according to claim 12, wherein the light splitting element is a polarization beam splitter, and the projection exposure apparatus further comprising a 1/4 wave plate disposed between the polarization beam splitter and the projection exposure mask.

14. The projection exposure apparatus according to claim 7, wherein the first illumination system irradiates light to the projection exposure mask from outside the projection system, and the light is reflected by the reflecting type mask pattern and then irradiated by the projection system to the member.

15. The projection exposure apparatus according to claim 7, further comprising a parallel plate which is provided in the projection system and transmits light to be projected onto the member, the parallel plate being swung in a forth direction and a back direction,

wherein the second mask pattern is irradiated with light in

the swinging of the parallel plate in one direction of the forth and back direction.

16. The projection exposure apparatus according to clam 15, wherein the first mask pattern is irradiated with light during the swinging of the parallel plate.

17. A method of projection exposure comprising the steps of:

preparing the projection exposure mask according to claim 1; and

exposing a member to form a continuous pattern and a discontinuous pattern thereon by using the projection exposure mask.

18. A method of projection exposure comprising the steps of:

a first step of preparing a projection exposure mask, the projection exposure mask having a first mask pattern for exposing a member to form a continuous pattern thereon and a second mask pattern for exposing the member to form a discontinuous pattern thereon, one of the first and second mask patterns being a reflecting type mask pattern and the other mask pattern being a transmitting type mask pattern;

a second step of projecting light from a projection system onto the member by using the projection exposure mask; and

a third step of moving the member in a direction substantially orthogonal to a projection light axis of the projection system,

wherein, at the second step, the reflecting type mask pattern is irradiated with light from one side of the projection exposure mask and the transmitting type mask pattern is irradiated with light from the opposite side of the one side of the projection exposure mask.

19. The method of projection exposure according to claim 18, wherein, at the second step, light from the reflecting type mask pattern is combined with light from the transmitting type mask pattern to project the combined light onto the member.

20. The method of projection exposure according to claim 18, wherein, at the second and third steps, the first mask pattern is continuously illuminated and the second mask pattern is intermittently illuminated.

21. The method of projection exposure according to claim 18, wherein, at the second step, the projection exposure mask is irradiated with light in a linear or arc slit-like shape at the second step.

22. The method of projection exposure according to claim 18, wherein, at the second step, the reflecting type mask pattern is irradiated with light through the projection system.

23. The method of projection exposure according to claim 22, wherein, at the second step, the projection system separates an

optical path of light irradiated to the reflecting type mask pattern from an optical path of light reflected by the reflecting type mask pattern and projected onto the member, and combines light from the reflecting type mask pattern with light from the transmitting type mask pattern to project the combined light onto the member.

24. The method of projection exposure according to claim 18, wherein, at the second step, a parallel plate which is provided in the projection system and transmits light to be projected onto the member is swung in a forth direction and a back direction, and the second mask pattern is irradiated with light in the swinging of the parallel plate in one direction of the forth and back direction.

25. The method of projection exposure according to claim 24, wherein, at the second step, the first mask pattern is irradiated with light during the swinging of the parallel plate.

26. An exposed member comprising:

a continuous pattern and a discontinuous pattern formed through exposure by the projection exposure apparatus according to claim 6.

27. An exposed member comprising:

a continuous pattern and a discontinuous pattern formed through exposure by the projection exposure apparatus according to

claim 7.

28. An exposed member comprising:

a continuous pattern and a discontinuous pattern formed through exposure by the method of projection exposure according to claim 17.

29. An exposed member comprising:

a continuous pattern and a discontinuous pattern formed through exposure by the method of projection exposure according to claim 18.